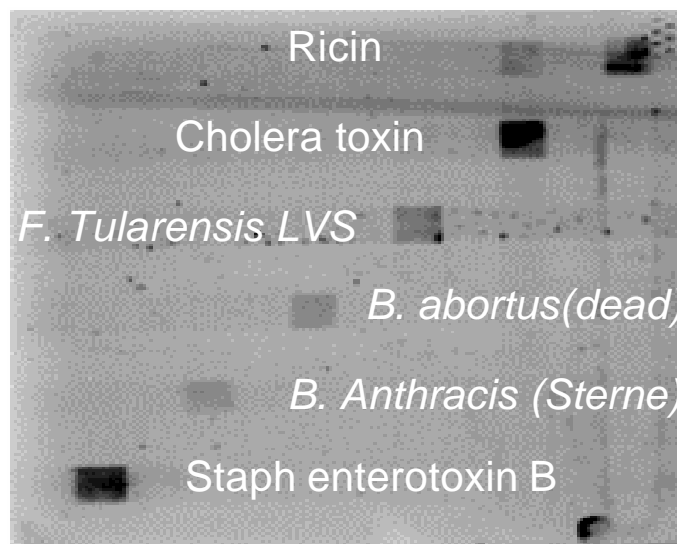
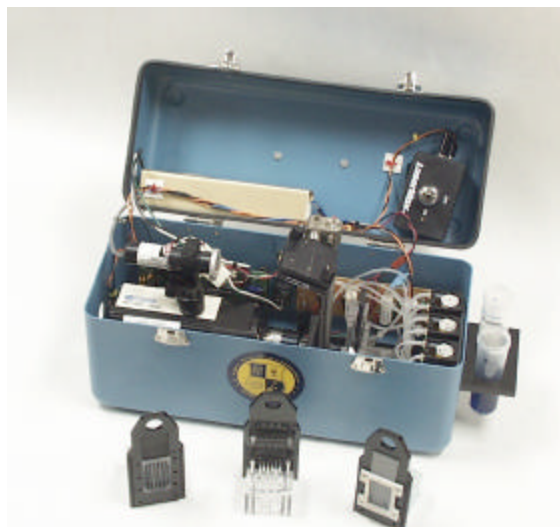


# Array Biosensor



The Naval Research Laboratory (NRL) has developed an array biosensor for the rapid simultaneous analysis of multiple analytes in multiple samples. The biochemical component of the multi-analyte biosensor consists of a patterned array of biological recognition elements (e.g. "capture" antibodies) immobilized on the surface of a planar waveguide. A fluorescence assay is performed on the patterned surface, yielding an array of fluorescent spots. Software developed at NRL analyzes spot locations to determine the identity of the analyte detected and quantifies the fluorescent signals from each spot.

Features and advantages include:

- **Sensitive:** demonstrated detection of < 500 pg/mL toxins and < 1000 cfu/mL bacteria.
- **Selective:** immunoassay method is highly specific.
- **Flexible:** simultaneous detection of proteins, toxins, bacteria, and viruses has been demonstrated.
- **Rapid:** results available in as little as 10 minutes.
- **Parallel processing:** simultaneous analysis of multiple samples for multiple analytes.
- **Designed for use in the field:** stable reagents and compact, lightweight, automated system.

Applications include:

- Infectious disease diagnostics
- Biological warfare defense
- Food & beverage safety
- Agricultural/veterinary testing
- Environmental monitoring

Licenses are available to companies with commercial interest.

## *Points of Contact*

Naval Research Laboratory  
4555 Overlook Avenue, SW, Washington, DC 20375-5320  
<http://techtransfer.nrl.navy.mil/>

Jane F. Kuhl • Head, Technology Transfer Office • (202) 767-7230 • [kuhl@utopia.nrl.navy.mil](mailto:kuhl@utopia.nrl.navy.mil)  
Dr. Fran Ligler • Center for Bio/Molecular Science & Engineering • (202)404-6002 • [fligler@cbmse.nrl.navy.mil](mailto:fligler@cbmse.nrl.navy.mil)  
Dr. Chris Rowe Taitt • Center for Bio/Molecular Science & Engineering • (202)404-4208 • [crtaitt@cbmse.nrl.navy.mil](mailto:crtaitt@cbmse.nrl.navy.mil)